







## **INFORMATIONAL MEMORANDUM**

**TO: Public Safety Committee**

**FROM: Rachel Bianchi, Communications and Government Relations Manager**

**CC: Mayor Ekberg**

**DATE: May 31, 2017**

**SUBJECT: Sustainability Goals for Fire Station Construction**

### **ISSUE**

With the assistance of Weinstein A+U, the Committee had an initial discussion on May 15, 2017 regarding potential sustainability goals associated with the construction of three new fire station. Staff is seeking direction from the Committee as to next steps.

### **BACKGROUND**

The Weinstein A+U memo provided a comprehensive look at various routes the City could take regarding sustainability in design and construction of the fire station program. The memo covered potential certification programs such as LEED, examples of projects in neighboring jurisdictions that were certified, and alternatives to certification. The memo also included a recommendation section that indicated that funding will be a driver in the "intensity" of the City's sustainability goals.

Per the discussion in committee on May 15, 2017, it was acknowledged that the costs of certification alone can be in the \$100,000 range, depending on which certification one is seeking, and that doesn't include the hard costs associated with constructing to that certification. Pursuing certification – such as LEED gold status – is one route for the City to consider to achieve its sustainability goals. However, staff is mindful as to the budget implications associated with this choice.

The Pacific Northwest is known for its strong building, energy and other codes that positively affect sustainability-related issues. The City has a "do nothing" option that would still produce buildings that are mindful of energy and water use and have relatively low impacts on the environment.

However, the City also has the opportunity to find a more sustainably middle ground that is conscious of cost but also forward-thinking in long-term investments that could save natural and financial resources. For instance, focus on energy efficiency would have a positive impact on the long-term maintenance and operations budget of each building, while also saving environmental impacts associated with operating an inefficient HVAC system.

### **RECOMMENDATION**

Due to the budget implications associated with certification, and acknowledgement of the City's long-term desire to steward the environment and community, staff recommends the City choose the latter option of a sustainable middle ground. By providing Weinstein A+U with specific direction as to identifying sustainable features that will produce long-term financial and environmental savings, the City can have a

meaningful impact over the life of these buildings. This direction will require Weinstien A+U and subconsultants to have a sustainability charrette and assess project sustainability elements at Schematic Design, Design Development, Construction Documents and project completion stages. Project fees outside of construction costs associated with this sustainability efforts range from \$40,000 - \$60,000. The Council is being asked to provide consensus on the above approach at the June 26, 2017 Committee of the Whole meeting.

**ATTACHMENTS**

Weinstein A+U Sustainability Memo

## EVALUATING THIRD PARTY GREEN BUILDING CERTIFICATION FOR TUKWILA FIRE STATIONS MAY 9, 2017

*Submitted by Weinstein A+U in collaboration with O'Brien and Company*

### Introduction

According to the *Tukwila Comprehensive Plan*, published in 2015, the City of Tukwila desires to be a community that prioritizes livability for its residents and responsible environmental stewardship for the benefit of future generations. In the execution of the Public Safety Program, the City now has a unique opportunity to embody those priorities in a set of buildings that will continue to serve Tukwila for the next 50 years or more. The design team for the new Tukwila Fire Stations, led by architecture firm Weinstein A+U, is delighted to assist the City in crafting new buildings that embody the culture of the City, in addition to optimizing the operations of the Tukwila Fire Department.

The design team recognizes that the City already has many critical goals directly related to sustainability, such as low building operating costs, the use of materials that will continue to perform and be attractive for the lifespan of the buildings, and promoting the health of the city's waterways. By choosing to fund high-performance buildings, not only will Tukwila support a healthier environment for all and save money over the life of the buildings, but it will also provide resilient, restorative facilities for its first-responders. A building that operates with minimal energy input will have an enhanced ability to function in the event of a natural disaster or fuel shortage, running much longer than a conventional building when forced to use a back-up generator. Buildings that incorporate quality daylighting strategies and high indoor air quality standards have been demonstrated to improve both the physical and mental health of their occupants, increasing worker productivity and reducing the number of sick days taken by employees. Lastly, cities that are growing at a rate such as Tukwila's have an opportunity to influence the quality of that growth by setting a good example with their public facilities. High-performance public buildings can be advertised as saving tax-payers money in the long term, but they can also further educate constituents about the varied benefits of sustainable design, inspiring consumers – and by extension, private developers – to value sustainable strategies in all types of construction.

Given the many benefits of choosing to pursue high sustainability goals for new public buildings, the purpose of this memo is to help the Tukwila City Council understand how Green Building Certification could help achieve those goals on their new fire stations, as well as adding further value to these projects.

### Why consider third party certification?

Third party certification of a project's green building features provides three main benefits: **accountability, public recognition, and better building performance**. Accountability means that an owner can use third party certification to hold the design and construction team to established standards, and receive verification that those standards were met by an impartial outside entity. This leads to a transparency and comparability that allows public owners to communicate to constituents and stakeholders that they are providing a building of a certain standard, which can be compared to projects provided by other public entities using the same certification system.

The most direct value for owners from using a third-party certification is driving better building performance. Many certification programs are comprehensive, requiring projects to address multiple environmental issues to a certain level in order to earn certification. This acts as a driver for owners

and project teams to identify ways to improve all aspects of environmental sustainability addressed in a certification program. Third party certification also provides an additional, impartial metric for evaluating individual strategies for a project, allowing teams to determine which strategies will best achieve a given performance threshold within a project budget.

#### *Alternatives to third-party certification*

Third-party certification has an additional cost to the project and can sometimes require projects to implement strategies that are not the best fit. There are other tools an owner can use to achieve the accountability and building performance that third-party certifications provide. These tools can also be used in conjunction with a third-party certification to assure a successful certification; however, they do not provide the same ability to promote a project's achievements, or to understand how the project is performing compared to similar projects.

Some examples of these tools are:

- Contracting methods: Integrated Project Delivery, Design/Build with performance guarantee
- Decision-making tools: Life-Cycle Cost Analysis and Energy Benchmarking
- Verification tools: Monitoring-based commissioning, building envelope commissioning, Energy Star Portfolio Manager

### **Regional Precedents**

Since third-party certifications for green building began to show up in the market in the late 1990s, many government entities of all sizes have looked to these outside resources to help set consistent, impartial standards for achieving environmental, climate, and performance goals for the assets they build and manage. According to the US Green Building Council's Public Policy Library, there are currently 215 government policies in the US requiring some sort of green building certification for public buildings (*searched 05/03/2017*). These stretch from the federal level to small and large cities and are in the East, South, Midwest, Southwest, and Western parts of the country. The following section highlights some of those policies relevant to the Pacific Northwest region.

#### *Federal, State, and Local Municipal Certification Requirements*

Federal Executive Order 13423, adopted in 2007, requires federal agencies to meet high-performance and sustainable building goals. Those goals have been translated into federal guidelines by the General Services Administration, who has endorsed both LEED and a version of Green Globes as tools for agencies to prove compliance with the guidelines.

Since 2005, Washington State has required that all major facility projects of public agencies receiving funding in a state capital budget, or projects financed through a financing contract, be designed, constructed, and certified to at least the LEED Silver standard. RCW 39.35.040 also requires these projects to conduct a life-cycle cost analysis to evaluate energy efficiency options.

King County's 2013 update to the Green Building and Sustainable Development Ordinance requires all eligible new construction projects to strive for LEED Platinum certification or, for non LEED-eligible projects, the highest level of certification available on an internal sustainable infrastructure scorecard or other approved third-party certification. Other approved programs include Built Green, Evergreen Sustainable Development Standard, Salmon Safe, and Living Building Challenge.

City of Seattle's Sustainable Buildings and Sites Policy for municipal facilities requires new construction and major renovations 5,000 square feet or greater to meet LEED Gold, as well as key

performance requirements for energy and water efficiency, waste diversion, and bicycle facilities. Seattle also has several private-sector incentive programs in place that provide fast track permitting, additional FAR, and additional height.

The cities of Kirkland, Shoreline, Lynnwood, Bothell, Newcastle, and Redmond all have private-sector incentive programs for green building (fast-track permitting is the most common), but no policy requirements for municipal buildings. Issaquah has Resolution 2004-11, which requires LEED Silver or Built-green 4-star. Non-applicable building types must refer to those systems for applicable green building practices but do not have to pursue certification.

#### *Certification Status for Fire Stations Locally and Nationally*

LEED is by far the most common certification program used by agencies and municipalities for fire stations and related facilities. There are over 300 LEED certified fire facilities internationally and another 300 registered. Seventeen of the certified projects are in Washington, primarily in Seattle. Olympia, Vancouver, and Issaquah also have certified fire stations. Green Globes has a handful of certified fire stations across the US, none in Washington. Overall Green Globes has certified 53 buildings in Washington of all types, many owned by federal agencies.

#### *Example projects*

- Seattle Fire Station 20, completed in 2014, is the highest rated LEED Platinum Fire Station certified. It is 9,400 sf with space for two apparatus and features a solar PV array, green stormwater infrastructure, durable low-maintenance materials, and high-efficiency glazing for daylight, sound control, and energy efficiency. In 2016 it earned the F.I.E.R.O. Honor and Seattle Design Excellence Awards.
- City of Eagan Public Safety Center in Minnesota was the first Green Globes certified fire station in 2011. The 38,000 sf building combined two previous fire stations into one centralized location and also serves as a training center and dorm for volunteer fire fighters. It features a ground source heat pump, daylighting and LED lights, and recycled materials.
- City of Olympia Fire Station 4 was also completed in 2011 and earned LEED Gold. It is 13,370 sf, including some administrative space, and features aggressive insulation, heat exchangers, and a highly efficient HVAC system along with functional daylighting design. This project won the National Fire Chief Station Style First Place award.

#### **Certification options**

When evaluating use of a third-party certification program, it is important to consider that there are a variety of options, including the most common system, Leadership in Energy and Environmental Design (LEED) by the US Green Building Council. Some address green building across multiple categories and some focus on one aspect of sustainability that may align best with an owner's goals.

#### *Comprehensive Environmental Sustainability Certifications*

##### LEED

- Most widely recognized and accepted program; used by most municipal, county, and state policies for green building.
- Estimated \$85,000 to \$125,000 in administrative costs and certification fees per building. Some efficiencies for projects designed and built at the same time by the same teams.

- The latest version, LEED v4, has a number of new credits that can drive better building performance, such as those for integrative process, whole building life-cycle assessment, green stormwater infrastructure, and advanced commissioning.
- LEED certification for similar buildings are likely to be one level lower in Version 4 than it would have been in the previous version, e.g. LEED v3 Gold building = LEED v4 Silver building

#### Green Globes

- Criteria substantially similar to LEED, except no prerequisites and includes the ability to determine which credit categories are applicable.
- Uses surveys and on-site verification to ease documentation requirements. Access to verifier via phone and e-mail during design.
- Estimated \$60,000 - \$80,000 in administration, verification, and certification fees.

#### Living Building Challenge (LBC), LBC Petal, or Net Zero Certification

- All features of the program are required for LBC certification, and the features from three of six categories are required for Petal certification. Net Zero certification is available for buildings that produce 105% of the energy they use on an annual basis.
- Requirements are high, e.g. net zero energy or net zero water, which results in a high performing building.
- Performance verified after one year of continuous operations.
- \$15,000 - \$25,000 in certification fees. Additional administrative costs could exceed LEED costs.

#### *Certifications Specific to an Environmental Attribute*

##### Salmon Safe

- Unique local program focused on regional issues of storm water management, water quality, habitat, and landscape management.
- Requires recertification every five years to maintain recognition. Requirements customized in agreement between certifier and organization receiving certification. On-site verification.
- Fees variable and grants sometimes available. Less cost than LEED and Green Globes.

##### Energy Star

- National, federal benchmarking program for building energy and water efficiency.
- Based on one year of performance data, verified by an engineer.
- No certification fees. Costs for verification negotiated with verifier.

##### WELL Building Standard

- New standard focused on health and wellbeing. Developed and run by for-profit "B" corporation with support from the US Green Building Council (also manages LEED) and International Living Future Institute (also manages LBC).
- Compatible with LEED and LBC, with a segment of overlapping requirements.
- \$25,000 in certifications fees. Administrative costs still unknown.

## Recommendations

Since the values of the City of Tukwila and the functional needs of the Tukwila Fire Department are both supported by the construction of high-performance fire stations, the design team strongly suggests that the City incorporate sustainability goals into its Public Safety Program. The intensity of those goals and the decision how (or if) to certify those buildings will be largely determined by the available funding.

In order to meet those goals, regardless of whether a third-party certification system is used:

- Set specific measurable objectives for building performance and develop owner's project requirements (OPR) early in the design phase.
- Establish a fair method of verifying results to hold the project team accountable for achieving the project goals and requirements.
- Engage commissioning professionals for both building systems and building envelope commissioning. Consider ongoing, monitoring-based commissioning.
- Use Energy Star Portfolio Manager to benchmark and track building performance. Consider Energy Star building certification.

In considering whether to use a third-party certification system:

- Understand how your project goals and desired sustainability strategies align with what the system measures. Projects that follow the steps above and craft a strong approach to green building often are very easy to certify, requiring limited adjustments or additions to what was already planned.
- Articulate what makes a certification valuable to this project so it is clear what the process should achieve – additional accountability, tools for public recognition and reporting, a higher level of building performance, etc.
- Decide as early as possible if you will proceed with a certification to allow the project team to integrate the standards in the system into the design from the beginning. This minimizes possible additional costs for redesigning and backtracking to collect information.

## Timeline

While it is most efficient for a design team to have established sustainability goals to work with when going into the programming phase for a new building, we understand that the City of Tukwila's priorities for its new fire stations are still evolving. Before moving forward into the schematic design phase of the first station in August 2017, the programmatic needs and desires of both the fire department and city will need to be reconciled with the budgets that have been established for all three stations. Given that there is likely to be some modification of either budget or building scope that comes out of that reconciliation process, we recommend adding a desired level of sustainability performance to that decision matrix.

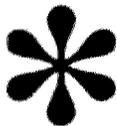
In order to facilitate those decisions, the design team will strive to organize our final building programs and subsequent cost analysis into a set of options that will help the City choose which level of spending best aligns with its highest priorities. For the City's part, it will be crucial to understand and finalize their priorities in the coming weeks so that a final decision on scope and budget can be made efficiently during the budget reconciliation period, which is currently scheduled for July 2017.



and reporting will fall on the construction contractor and construction management team on the projects.

Councilmember Quinn stated that he would not support the proposed policies because they do not go far enough to attain the goal of local and DBE hiring, and that “good faith effort” is not specific or enforceable. He asked staff to provide more specific information regarding the costs associated with implementation of a formal community workforce agreement. Since local/DBE hire is a Council priority, the Council should make the decision about whether to direct resources to it. He restated an interest in finding a template agreement that could work in Tukwila. Councilmember McLeod asked how a 10-mile radius was decided for the local hire pilot policy. Staff responded that a 10-mile radius is a good way to describe South King County, and limiting it further would make the goal harder to accomplish based upon feedback received from other jurisdictions. Councilmember Duffie spoke in favor of the proposal as a starting point for the City. The Committee did not reach a conclusion and requested that this topic return at a future meeting. **RETURN TO COMMITTEE.**

C. Discussion on Public Safety Plan Sustainability Goals



Staff is seeking direction from the Committee on sustainability goals and strategies with regard to the Public Safety Plan buildings program. The architect hired to design the three fire stations, Weinstein A+U, prepared information for the Committee on various options relating to sustainability goals including third party certification, energy benchmarking, life-cycle cost analysis, verification tools, and more. Weinstein A+U strongly recommends that the City incorporate sustainability goals into its buildings but decision making around this will be determined by available funding. They recommend that sustainability goals be factored into decision-making around the same time as programmatic features, since choices made in both areas will impact budget availability. Staff will work with Chair McLeod on direction for next steps for engaging the Committee and Council on this topic. **RETURN TO COMMITTEE.**

D. Public Safety Plan – Location of Fire Station 51

This item was postponed due to time constraints.

E. 2017 1<sup>st</sup> Quarter Police Department Report

Chief Villa updated the Committee on items of interest from the 1<sup>st</sup> quarter of 2017, including staffing, recognitions, community outreach, significant operations, and events. The Committee requested a future update on the Police Department Strategic Plan. **INFORMATION ONLY.**

III. MISCELLANEOUS

**Adjourned 6:56 p.m.**

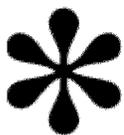
Committee Chair Approval

Minutes by LH

C. Contract: AXON Enterprise, Inc. for Police Department Body/Vehicle Camera Program

Staff is seeking Council approval of a five-year contract with AXON Enterprise, Inc. in the amount of \$550,000.00 for a new body and vehicle camera system and new Taser devices. The current in-car video system has not performed well. Officers currently do not wear body cameras, although the department conducted two pilot programs in 2016 that were successful. Body cameras can increase public and officer safety, enhance recall, and increase transparency and accountability. Data suggests they lead to fewer confrontations, complaints, and use of force along with reduced litigation and investigation costs. The Department has approved a comprehensive policy that goes above and beyond the law regarding privacy considerations. For example, if an officer is inside a home and the resident requests that the camera be turned off, the officer can comply depending on the situation. The proposed contract will cost \$153,352.00 the first year for capital and equipment purchase costs, and \$98,892.00 for the following four years. Costs will be paid from existing budget including drug seizure funds. If approved, the contract will include 29 new vehicle video systems, 50 body cameras for all uniformed personnel, and 50 new Tasers. Councilmember Duffie inquired about the consequences of forgetting to turn the camera on, and staff replied that there is an investigation and disciplinary process for all violations of departmental policies. If a camera is lost or stolen it can be disabled remotely. Chair McLeod asked for assurance that the Department of Technology and Innovation is supportive of the new system and staff replied that it is especially considering the dysfunctionality of the current equipment. Councilmember Quinn commented that early buy-in from the Guild is a benefit and asked if the proposal is in alignment with 21<sup>st</sup> Century Policing principles, which staff confirmed. Chief Villa noted that the contract itself was not included in the packet which was an oversight. Copies were distributed to the Committee members for review, and they agreed that the item could move forward to the Committee of the Whole as scheduled. If any concerns are identified by a Committee member the schedule is subject to change. **UNANIMOUS APPROVAL PENDING CONTRACT REVIEW. FORWARD TO JUNE 26, 2017 COMMITTEE OF THE WHOLE.**

D. Public Safety Plan Sustainability Goals



Staff is seeking Council consensus on appropriate sustainability goals associated with construction of the three new fire stations. The Committee previously heard a presentation on comprehensive information about certification programs such as LEED, examples of certified projects, and alternatives to certification. Funding is an important driver in the City’s pursuit of sustainability goals due to the costs associated with pursuing certification such as LEED and Salmon Safe. Because there are strong building, energy and other codes in the region, the buildings will naturally have energy and water saving sustainability features regardless of additional policy direction. Staff recommends that the City not pursue formal certification but instead to provide direction toward identifying sustainability features that will produce long-term financial and environmental savings over the life of the buildings. Staff also recommends that the architects and subconsultants facilitate a sustainability charrette to identify these elements. Chair McLeod asked what is lost by not pursuing certification, and staff replied that it is just the recognition, which is usually more suited to more public buildings such as City Halls. Also, because modern buildings already incorporate many sustainability features, certification programs are becoming less meaningful. Committee members spoke in favor of sustainability principles but also in keeping costs down as much as possible considering the construction



market. They agreed with the staff recommendation. **UNANIMOUS APPROVAL. FORWARD TO JUNE 26, 2017 COMMITTEE OF THE WHOLE.**

**III. MISCELLANEOUS**

Staff reminded the Committee of the special meeting scheduled for Monday, June 26, 2017 at 5:30 p.m. to review and discuss the Facets fire station location study.

**Adjourned 6:19 p.m.**

 Committee Chair Approval

Minutes by LH